IN THE CLAIMS:

1. (Currently Amended) A system for selectively blocking electromagnetic energy comprising:

first means for employing a perforated component to pass a beam characterized by a first property and reject a beam characterized by a second property and

second means for selectively altering ~~a~~ said beam passed by said first means so that upon reflection from a surface, said beam exhibits said second property.

2. (Original) The system of Claim 1 wherein said first property corresponds to a first polarization, and said second property corresponds to a second polarization.

3. (Original) The system of Claim 2 wherein said perforated component includes a beamsplitter having a first perforated metallic plate.

4. (Original) The system of Claim 3 wherein said second means includes a quarter-wave plate having a second perforated metallic plate.

5. (Original) The system of Claim 4 wherein said quarter-wave plate is implemented via two perforated metallic eighth-wave plates.

6. (Original) The system of Claim 4 wherein said beamsplitter and said quarter-wave plate have rectangular, square, elliptical, or circular perforations therethrough.

7. (Original) The system of Claim 6 wherein said beamsplitter is sufficiently angled so that energy reflecting from said beamsplitter is directed away from a source of said beam.

8. (Original) The system of Claim 7 wherein said beamsplitter is angled approximately 45 degrees relative to said beam.

9. (Original) The system of Claim 8 wherein said beam is a quasioptical beam.

10. (Original) The system of Claim 9 wherein said source of said beam is a gyrotron that produces a high-power beam of microwave or millimeter-wave energy.

11. (Original) The system of Claim 4 wherein perforations in said beamsplitter and said quarter-wave plate are spaced in accordance with the following equations for perforation patterns arranged in an isosceles triangle and in a rectangle, respectively:

$$2\frac{\lambda}{d_x} \geq 1+\sin\theta, \quad \frac{\lambda}{d_y} \geq 1+\sin\theta$$

and

$$\frac{\lambda}{d_x} > 1+\sin\theta, \quad \frac{\lambda}{d_y} > 1+\sin\theta,$$

where λ is the wavelength of said beam; θ is the approximate angle of incidence of said beam on said quarter-wave plate or said beamsplitter; d_x represents horizontal distance between perforation centers; and d_y represents vertical distance between perforation centers.

12. (Original) A system for selectively redirecting electromagnetic energy comprising:

first means for changing polarization of said electromagnetic energy from a first polarization to a second polarization and

second means for employing said second polarization to block and/or reflect said electromagnetic energy characterized by said second polarization via one or more perforations.

13. (Original) The system of Claim 12 wherein said first means includes a perforated quarter-wave plate.

14. (Original) The system of Claim 13 wherein said perforated quarter-wave plate is a perforated metallic quarter-wave plate.

15. (Original) The system of Claim 14 wherein said second means includes a perforated metallic beamsplitter.

16. (Original) The system of Claim 15 wherein said electromagnetic energy includes a quasioptical beam.

17. (Original) The system of Claim 16 wherein said quasioptical beam is a high-power microwave beam.

18. (Original) A quasioptical millimeter-wave isolator comprising:

a perforated metallic quarter-wave plate sufficient to change polarization of a quasioptical beam to be blocked and/or redirected from a first polarization to a second polarization and

a perforated metallic beamsplitter sufficient to block and/or reflect said quasioptical beam characterized by said second polarization.

19. (Original) A millimeter-wave source comprising:

first means for generating a quasioptical beam of electromagnetic energy of a first polarization;

second means for transmitting said quasioptical beam through a perforated plate, said perforated plate passing energy of a first polarization and reflecting and/or absorbing energy of a second polarization; and

third means for imparting said second polarization to energy reflected back toward said source so that said second means reflects and/or absorbs said energy reflected back toward said source.

20. (Currently Amended) The ~~system~~ source of Claim 19 wherein said third means includes a perforated metallic quarter-wave plate.

21. (Currently Amended) The ~~system~~ source of Claim 20 wherein said second means includes a source output window and a perforated metallic beamsplitter.

22. (Currently Amended) A method for selectively blocking electromagnetic energy comprising the steps of:

passing a beam of electromagnetic energy with a perforated component having a first polarization and rejecting electromagnetic energy having a second polarization ~~via a perforated component~~ and

selectively altering said first polarization with a surface so that a ~~reflected~~ beam of electromagnetic energy reflected by said surface exhibits said second polarization before impinging on said perforated component ~~first means~~.

23. (Original) The method of Claim 22 wherein said step of selectively altering includes employing a perforated component to selectively alter said first polarization.

24. (Currently Amended) A system for selectively blocking electromagnetic energy comprising:

a perforated metallic beamsplitter adapted to pass a beam characterized by a first property and to reject a beam characterized by a second property and

means for selectively altering ~~a~~ said beam passed by said perforated metallic beamsplitter so that upon reflection from a surface, said beam exhibits said second property.

25. (Original) The system of Claim 24 wherein said metallic beamsplitter is a perforated metallic beamsplitter, and wherein said means for selectively altering a beam is a perforated metallic quarter-wave plate.

26. (Currently Amended) A system for selectively blocking electromagnetic energy comprising:

first means for employing a perforated component to pass a beam characterized by a first property and reject a beam characterized by a second property and

a metallic quarter-wave plate adapted to selectively alter ~~a~~ said beam passed by said first means so that upon reflection from a surface, said beam exhibits said second property.

27. (Original) The system of Claim 24 wherein said metallic quarter-wave plate is perforated, and wherein said first means includes a perforated metallic beamsplitter.

28. (Currently Amended) A system for selectively blocking electromagnetic energy comprising:

a metallic beamsplitter adapted to pass a beam characterized by a first property and to reject a beam characterized by a second property and

a metallic quarter-wave plate adapted to selectively alter ~~a~~ said beam passed by said metallic ~~beam-splitter~~ beamsplitter so that upon reflection from a surface, said beam exhibits said second property.

29. (Original) The system of Claim 28 wherein said metallic beamsplitter and/or said metallic quarter-wave plate include perforations therein.